Data Collection and Research: Chronic Diseases in Patients, Providers, and Caregivers

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Introduction

- Chronic diseases impact a large number of people every year and are the leading causes of death and disability.
- The risk for developing a chronic disease can be reduced by leading a healthy lifestyle through proper nutrition, being physically active, and avoiding tobacco use.
- Access to prevention measures and education tools are also essential in reducing premature death and disability related to chronic disease.

Data Sources

- Mortality Data (Death Certificates)
- Alabama Statewide Cancer Registry
- Behavioral Risk Factor Surveillance System (BRFSS)

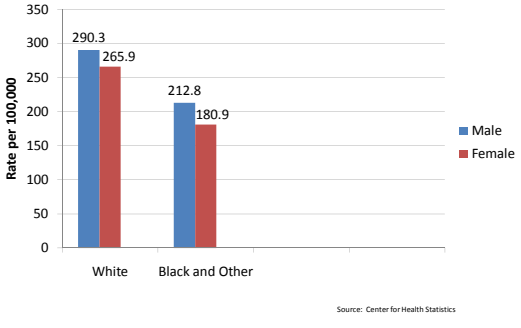
Alabama Center for Health Statistics

- Birth
- Death
- Marriage
- Divorce

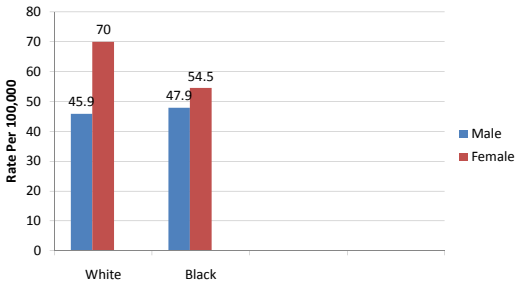
Leading Causes of Death

- Heart Disease
- Cancer
- Stroke
- Chronic Lower Respiratory Disease
- Accidents
- Alzheimer's Disease
- Diabetes
- Kidney Disease
- Influenza and Pneumonia
- Septicemia

Heart Disease Mortality Rates, Race and Sex Alabama, 2009



Stroke Mortality Rate, Race and Sex, Alabama , 2009

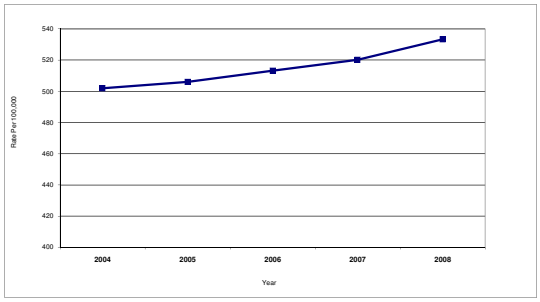


Source: Center for Health Statistics

Alabama Statewide Cancer Registry

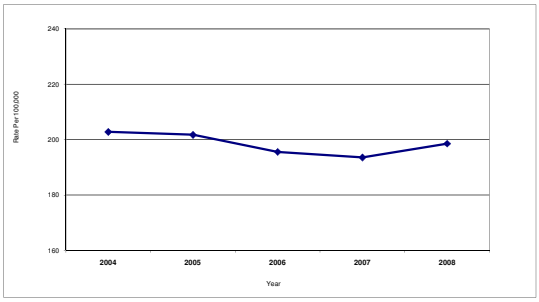
- Collects data on all cancer cases diagnosed or treated in Alabama
- Data collection began on January 1, 1996
- Monitors trends in cancer incidence
- Identifies populations at high risk for cancer
- Provides accurate and current information on cancer

Alabama Cancer Incidence Rate Trends, All Sites, Males and Females, 2004 to 2008



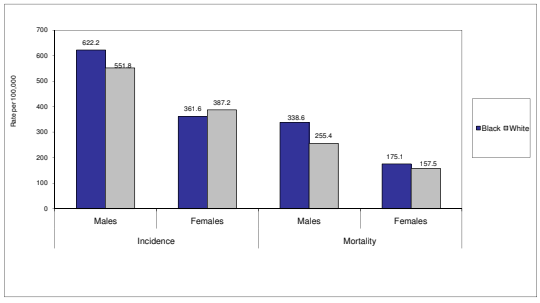
Per 100,00, age-adjusted to the 2000 U.S. standard population. Source: Alabama Statewide Cancer Registry (ASCR), 2010.

Alabama Cancer Mortality Rate Trends, All Sites, Males and Females, 2004 to 2008



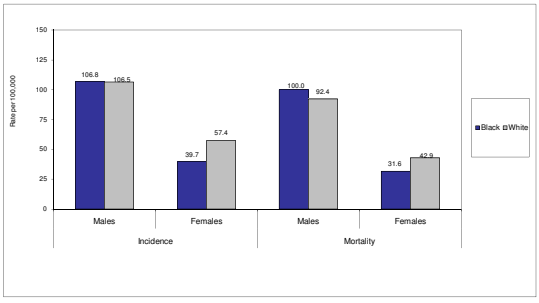
Per 100,00, age-adjusted to the 2000 U.S. standard population. Source: Alabama Statewide Cancer Registry (ASCR), 2010.

All Sites Cancer Incidence and Mortality Rates, By Sex and Race, Alabama



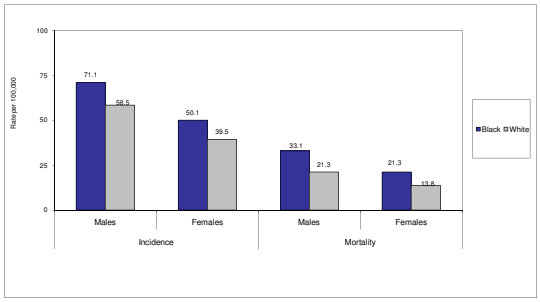
Per 100,000, age-adjusted to the 2000 U.S. standard population. Source: Alabama Statewide Cancer Registry (ASCR), 2010. Cancer Incidence (2003-2007), Cancer Mortality (1999-2008).

Lung Cancer Incidence and Mortality Rates, Sex and Race, Alabama



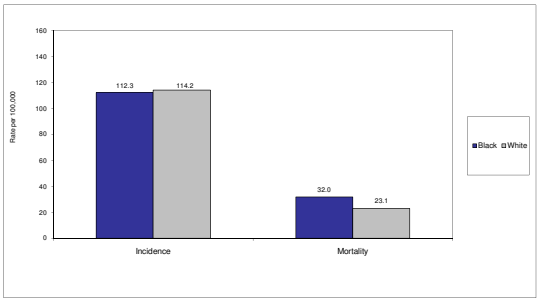
Per 100,000, age-adjusted to the 2000 U.S. standard population. Source: Alabama Statewide Cancer Registry (ASCR), 2010. Cancer Incidence (2003-2007), Cancer Mortality (1999-2008).

Colorectal Cancer Incidence and Mortality Rates, By Sex and Race, Alabama



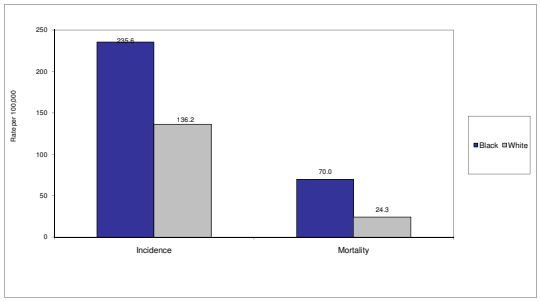
Per 100,000, age-adjusted to the 2000 U.S. standard population. Source: Alabama Statewide Cancer Registry (ASCR), 2010. Cancer Incidence (2003-2007), Cancer Mortality (1999-2008).

Breast Cancer Incidence and Mortality Rates, Females, by Race, Alabama



Per 100,000, age-adjusted to the 2000 U.S. standard population. Source: Alabama Statewide Cancer Registry (ASCR), 2010. Cancer Incidence (2003-2007), Cancer Mortality (1999-2008).

Prostate Cancer Incidence and Mortality Rates, Males, by Race, Alabama



Per 100,000, age-adjusted to the 2000 U.S. standard population. Source: Alabama Statewide Cancer Registry (ASCR), 2010. Cancer Incidence (2003-2007), Cancer Mortality (1999-2008).

Behavioral Risk Factor Surveillance System

- The Behavioral Risk Factor Surveillance System (BRFSS) is a state-based system of health surveys that collects information on health risk behaviors, preventive health practices, and health care access related to chronic disease and injury.
- BRFSS is the largest telephone health survey in the world.
- Data are collected monthly in all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and Guam.
- BRFSS data is used to identify emerging health problems, establish and track health objectives, and develop and evaluate public health policies and programs.

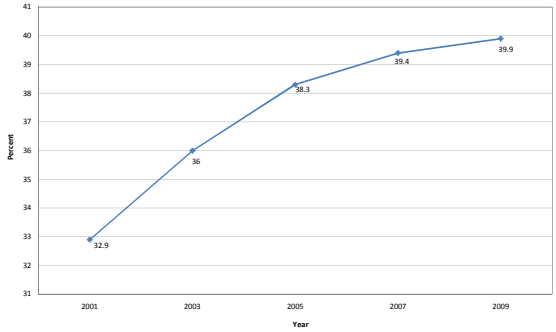
BRFSS History

- BRFSS was established in 1984 by the Centers for Disease Control and Prevention (CDC).
- CDC developed a standard core questionnaire for states to use to provide data that could be used to compare across states.
- By 1994, all states, the District of Columbia, and three territories were participating in the BRFSS.
- For many states, the BRFSS is the only source of timely, accurate data on health-related behaviors.

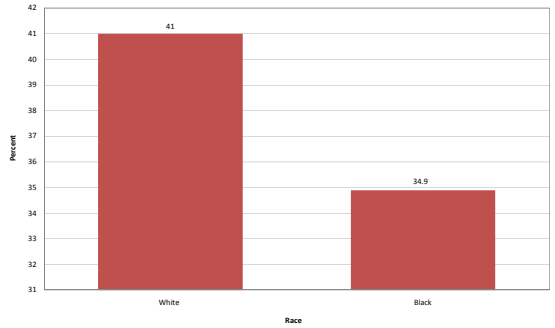
Cholesterol Background

- Approximately one in every six (16.3%) adults in the United States has high total blood cholesterol.
- More women than men in the United States have high cholesterol.
- In 2007, 74.8% of Americans reported that they had their cholesterol checked within the previous five years.
- Only 52% of Hispanics reported that they had their cholesterol checked within the previous five years.

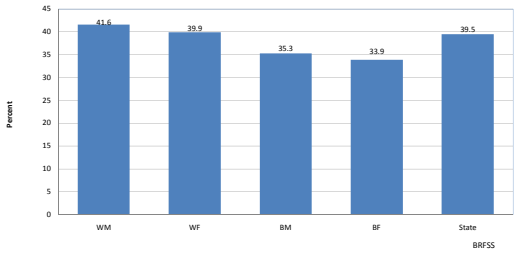
Adults in Alabama Who Have Been Told Their Blood Cholesterol Is High, 2001-2009



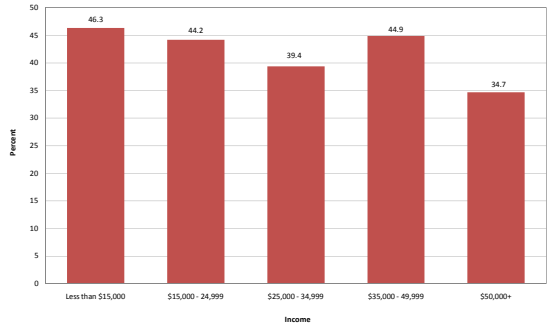
Adults in Alabama Who Have Been Told Their Blood Cholesterol Is High by Race, 2009



High Cholesterol In Alabama, 2009



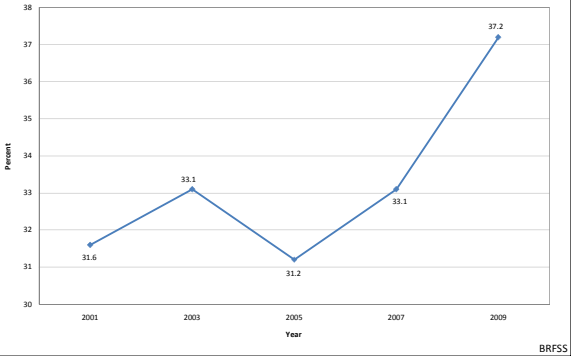
Adults in Alabama Who Have Been Told Their Blood Cholesterol Is High by Income, 2009



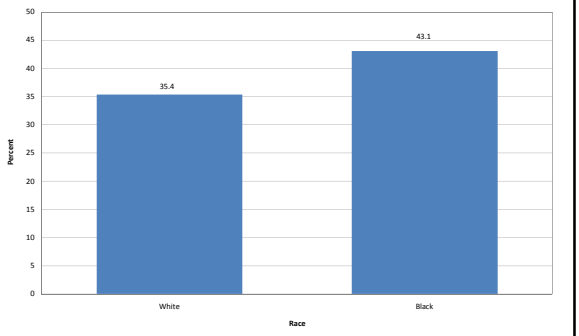
Hypertension Background

- The age-adjusted prevalence of hypertension among U.S. adults aged 18 years and older was 29.9% (NHANES 2005-2008).
- The overall percentage of adults with controlled blood pressure was 43.7% (NHANES 2005-2008).
- Older adults, non-Hispanic blacks, U.S. born adults, and adults with lower family income, lower education, public health insurance, diabetes, obesity, or a disability had a higher prevalence of hypertension than their counterparts.
- Men, adults aged 18-44 years, Mexican Americans, foreign-born adults, non-obese adults, and adults without health insurance, diabetes, or a disability had a lower prevalence of hypertension control than their counterparts.

Adults in Alabama Who Have Ever Been Told They Have High Blood Pressure, 2001-2009

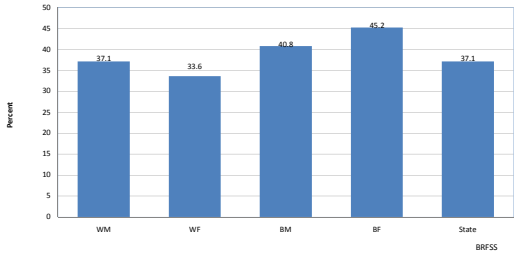


Adults in Alabama Who Have Ever Been Told They Have High Blood Pressure by Race, 2009



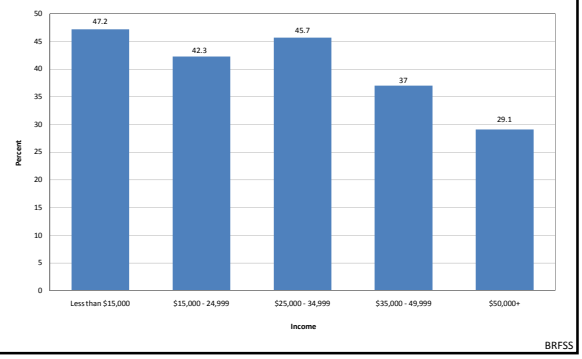
BRFSS

Hypertension In Alabama, 2009



BRFSS

Adults in Alabama Who Have Ever Been Told They Have High Blood Pressure by Income, 2009

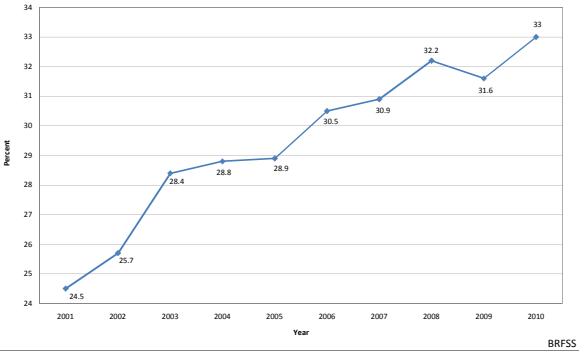


BRFSS

Obesity Background

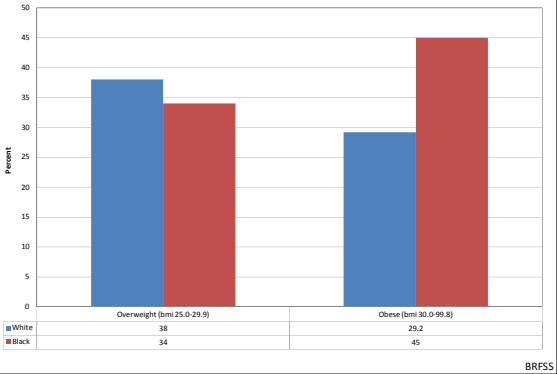
- Racial/ ethnic difference have not changed substantially during 1988-1994 and 2007-2008.
- Prevalence of obesity is lower among whites than among blacks and Mexican-Americans.
- Females: Prevalence is highest among blacks.
- Males 20 years and younger: Prevalence is highest among Mexican-American.
- Differences are limited regarding obesity prevalence across racial/ ethnic groups among men 40 years and older.
- There is an inverse association between family income and obesity prevalence among white females and white males aged 2-19 years.
- Racial/ ethnic differences in prevalence persist after controlling for differences in family income.
- In 2010, Alabamians were seventh in the nation for the percentage of people classified as obese.

Adult Obesity Trend in Alabama, 2001-2010 (BMI 30.0-99.8)



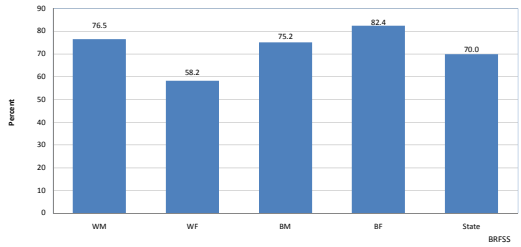
BRFSS

Adult Obesity Trend in Alabama by Race, 2010

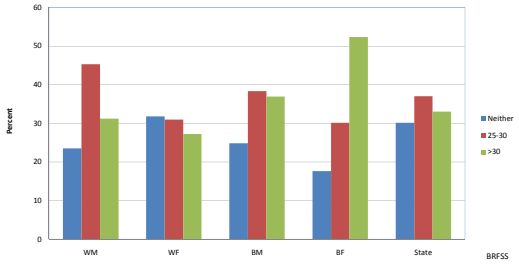


BRFSS

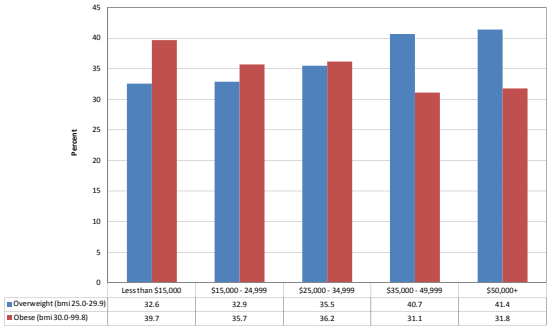
Overweight & Obesity In Alabama In 2010 BMI Greater Than 25



Body Mass Index In Alabama In 2010



Adult Obesity Trend in Alabama by Income, 2010



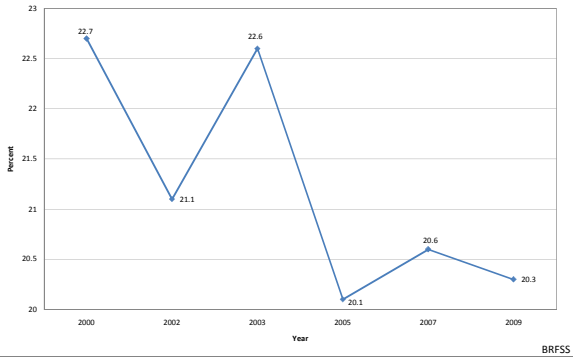
	Less than $15,000	$15,000 - 24,999	$25,000 - 34,999	$35,000 - 49,999	$50,000+
Overweight (bmi 25.0-29.9)	32.6	32.9	35.5	40.7	41.4
Obese (bmi 30.0-99.8)	39.7	35.7	36.2	31.1	31.8

BRFSS

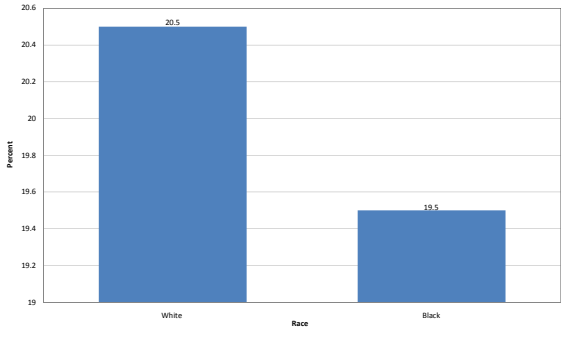
Nutrition Background

- A healthy eating pattern promotes health and decreases the risk of chronic disease.
- Poor diet is an important factor contributing to an epidemic of overweight and obesity in the United States.
- Poor diet is associated with major causes of morbidity and mortality such as cardiovascular disease, hypertension, type 2 diabetes, osteoporosis, and some types of cancer.
- Dietary Guidelines for Americans recognizes that in recent years nearly 15% of American households have been unable to acquire adequate food to meet their needs.
- Factors such as age, gender, race/ethnicity, genetics, and the presence of a disability can influence an individual's food intake.
- Some Americans lack access to affordable, nutritious food which makes it difficult for individuals to consume healthy diets.
- In order for individuals to make healthy lifestyle choices, they need to be aware of, have access to, and accept the healthy choices.

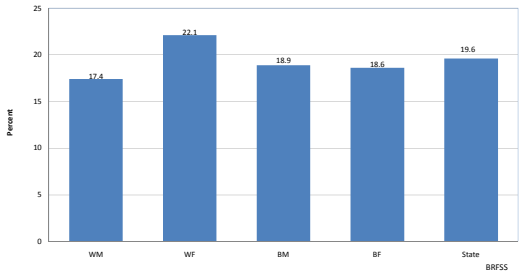
Adults in Alabama Who Consume Fruits and Vegetables Five or More Times Per Day



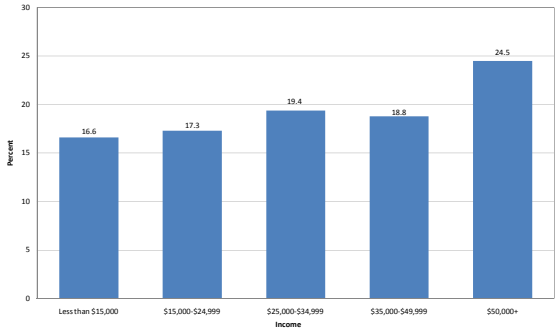
Consumption of 5+ Fruits and Vegetables Per Day by Race, 2009



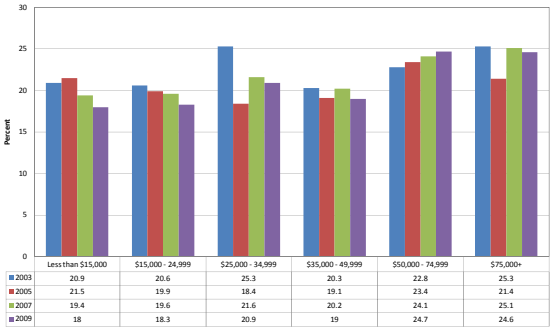
Alabamians Consuming Five Or More Fruits And Vegetables Per Day In 2009



Consumption of 5+ Fruits and Vegetables Per Day by Income, 2009



Consumption of 5+ Fruits and Vegetables a Day by Income, 2003-2009



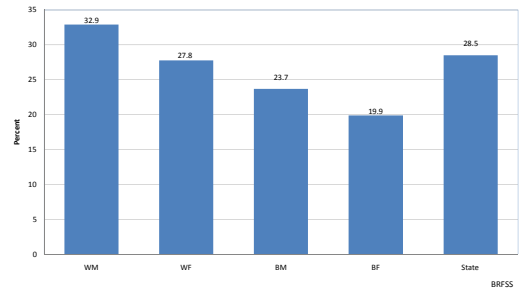
	Less than $15,000	$15,000 - 24,999	$25,000 - 34,999	$35,000 - 49,999	$50,000 - 74,999	$75,000+
2003	20.9	20.6	25.3	20.3	22.8	25.3
2005	21.5	19.9	18.4	19.1	23.4	21.4
2007	19.4	19.6	21.6	20.2	24.1	25.1
2009	18	18.3	20.9	19	24.7	24.6

CDC Division of Nutrition and Physical Activity

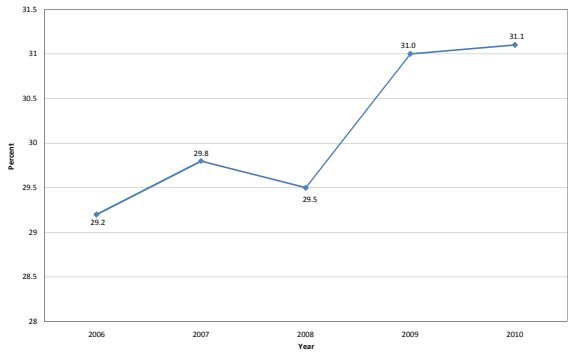
Physical Activity Background

- Age, gender, income, race/ethnicity, genetics, and the presence of a disability influence a person's physical activity pattern.
- Some Americans lack access to opportunities for safe physical activity which makes it difficult to maintain adequate physical activity levels.
- Physical inactivity is also an important factor contributing to the overweight and obesity epidemic in the United States.
- Physical inactivity is also associated with major causes of morbidity and mortality in the United States such as cardiovascular disease, hypertension, type 2 diabetes, osteoporosis, and some types of cancer.

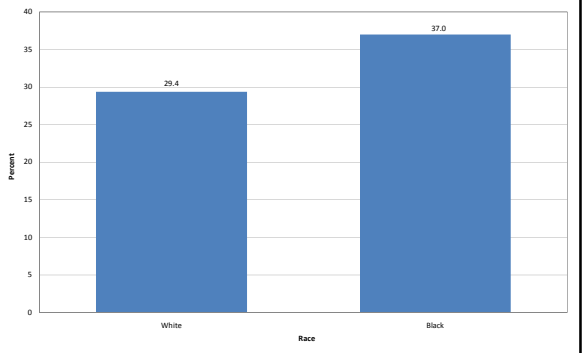
Alabamians That Meet Recommendations For Moderate Physical Activity In 2009



Physical Inactivity in Alabama, 2006-2010



Physical Inactivity in Alabama by Race, 2010

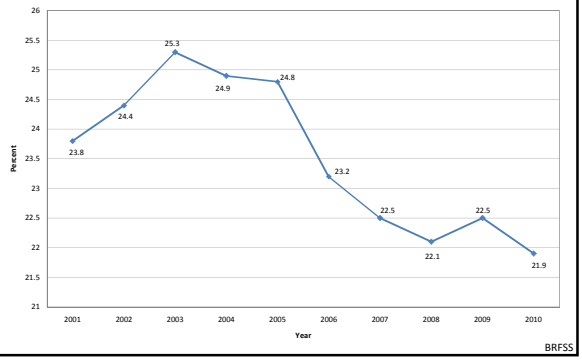


BRFSS

Tobacco Background

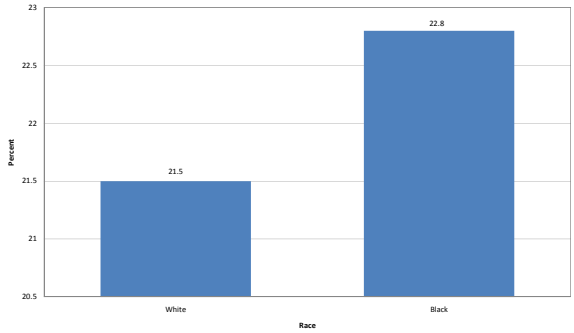
- Data indicates a decline in smoking among both male and female non-Hispanic white and non-Hispanic black adult smokers aged 18 years and older.
- Data indicates a much higher smoking prevalence among American Indian/ Alaska Native men and women.
- People with household incomes below or near the federal poverty level have a higher prevalence of smoking compared to people with household incomes above the federal poverty level.
- Smoking significantly decreases with increasing levels of educational attainment.
- People who are unemployed also have a high prevalence of smoking.

Adult Current Smoking Trend in Alabama, 2001-2010



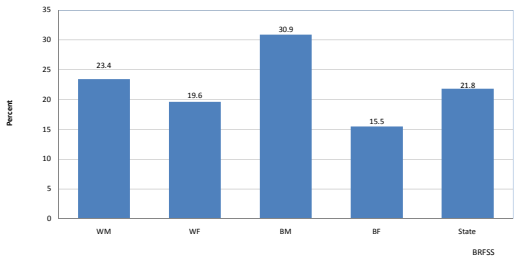
BRFSS

Adult Current Smokers in Alabama by Race, 2010



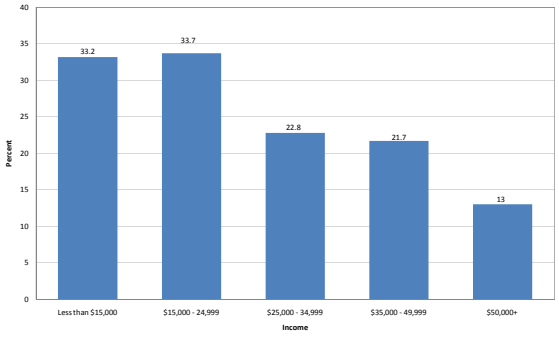
BRFSS

Current Smokers In Alabama In 2010



BRFSS

Adult Current Smokers in Alabama by Income, 2010



BRFSS

Access to Care

Designated Health Professional Shortage Area (HPSA) Primary Care

- 23 counties (HPSA)
- Estimated Unserved Population : 900,872
- Practitioners needed to Remove Designation: 141
- Practitioners needed to Achieve (2000:1): 420

Designated Health Professional Shortage Areas, Dental Care

- Estimated Unserved Population: 1,121,913
- Practitioners Needed to Remove Designation: 251
- Practitioners Needed to Achieve (3000:1): 352

Designated Health Professional Shortage Areas, Mental Health

- Estimated Unserved Population: 1,965,291
- Practitioners needed to Remove Designation: 44
- Practitioners needed to Achieve (1000:1): 185

Meaningful Use

- There are three components of Meaningful Use:
  - The use of a certified electronic health record (EHR) in a meaningful manner.
  - The use of certified EHR technology for electronic exchange of health information to improve quality of health care.
  - The use of certified EHR technology to submit clinical quality and other measures.
- The criteria for Meaningful Use will continue to be developed over the next five years (2011-2015) through three stages.
- For Stage 1, eligible professionals must meet 15 required core and 5 of 10 additional menu set objectives.
- Professionals must also report on 3 required core clinical quality measures and 3 additional clinical quality measures.
- Eligible hospitals must meet 14 required core objectives and 5 of 10 additional menu set objectives.
- Hospitals must report on 15 clinical quality measures.

Meaningful Use cont.

- The required objectives are closely related to prevention and chronic disease.
- The additional menu set objectives are important to chronic disease prevention and reduction of health disparities.
- In 2010, 15% of physicians in Alabama had an EHR system and used the patient reminder system.
- 24% of physicians in Alabama had an EHR system but did not use the reminder system.
- Through the implementation and meaningful use of EHR technology, providers will experience benefits such as reduction in errors, availability of records and data, reminders and alerts, clinical decision support, and e-prescribing/refill automation.

Winnable Battles

- Large-scale impact on health with known, effective strategies to address them
- Measurable progress
- Reducing health disparities
- Reducing overall health burden from these diseases and conditions

Winnable Battles

- Food Safety
- Healthcare-Associated Infections Prevention
- HIV Prevention
- Motor Vehicle Injury Prevention
- Nutrition, Physical Activity, and Obesity
- Teen Pregnancy Prevention
- Tobacco Use Prevention

Conclusion

- Chronic diseases affect a wide variety of people every year.
- Data on chronic diseases is available at both the state and national levels and for a variety of different groups and populations.
- Preventative measures, education tools, and community services and programs will help prevent chronic disease and inform groups and communities about healthy lifestyle choices.
- Health disparities may vary by community, but research around health disparities provides information on how to reach out and impact those segments of the population and the health outcomes.